

What is claimed is:

1 A method of manufacturing an optical fiber including a silica glass fiber, the method comprising the steps of:

5 irradiating a silica glass fiber spun out of a base material of silica glass with UV to purposefully cause multiple structural defects in said silica glass fiber; and

10 removing said structural defects by the residual heat from the spinning process of said silica glass fiber to improve UV resistance of said silica glass fiber.

15 2. The method of manufacturing an optical fiber according to claim 1, wherein said structural defects are removed by the residual heat from the spinning process of said silica glass fiber and further heating.

20 3. The method of manufacturing an optical fiber according to claim 2, further comprising the step of: applying an insulation coating around said silica glass fiber, wherein the further heating to remove said structural defects is performed before applying the insulation coating.

25 4. The method of manufacturing an optical fiber according to claim 2, further comprising the step of:

applying an insulation coating around said silica glass fiber, wherein the further heating to remove said structural defects is performed after applying the insulation coating.

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5. A method of processing a silica glass fiber, defining a longitudinal axis, to decrease resistance to transmission of ultraviolet radiation through the fiber comprising the steps of:

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a) spinning the silica glass fibers;

b) irradiating the spun fiber, transversely of the axis, to cause multiple structural defects adjacent the irradiated portion of the fiber;

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c) using heat in the irradiated portion of the fiber to remove the structural defects to decrease resistance to transmission of ultraviolet radiation through said irradiated portion of the fiber;

d) continuing to irradiate the spun fiber as it passes through an irradiation location and using heat to remove structural defects so formed.

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6. The method of claim 5 comprising heating the portions of fiber which have been irradiated to cause said structural defects to remove said defects.